

Notes on the Letters from Danish and Norwegian Naturalists contained in the Linnean Correspondence. By Professor J. C. SCHIÖDTE, of Copenhagen.

[Read June 18, 1874.]

AMONGST the treasures preserved by the Linnean Society, one of the most important is the correspondence of the King of Naturalists. It is true that for the appreciation of his own works and genius this vast collection is of minor value, because the letters are those of his correspondents and not his own. But Linnæus was the centre of the scientific world at his time and in his own department, such as no other man of science ever was to a similar degree; and this enormous mass of communications sent to him by contemporary naturalists of every nation and every class, through a series of years, give in their totality a most interesting and unique picture of that whole period in the history of science, and throw so much light on many points in it, that this history certainly never can be properly written without a most ample use of this correspondence, such as has not yet been made.

It was therefore a great satisfaction to me to be enabled, by the kind permission of the Linnean Society, to copy those letters to Linnæus, preserved in its library, which had been written by naturalists in Denmark and Norway. As many of these letters as seemed to have any interest have now been printed, exactly transcribed (a few only in extracts) in the seventh volume of the 'Naturhistorisk Tidsskrift,' pp. 333-509; and their historical value has been amply demonstrated by the quantity of new information which Mr. Gosch has derived from them and embodied in his work on the Zoological Literature of Denmark\*. In order to explain fully the importance of these documents for the history of natural science in Denmark, I should have to trespass too far on the indulgence of my readers; but a few short observations on the principal authors of them may perhaps not be unacceptable.

The letters printed in the 'Naturhistorisk Tidsskrift' are 130 in number, including a very few to the younger Linné. The following are the principal writers.

1. *Balth. Joh. de Buchwald*, Professor of Medicine at Copenhagen (five letters).

\* 'Udsigt over Danmarks Zoologiske Literatur,' Pt. II. vol. i. pp. 293-302, 321, 335, 339, 355, 360, 414, 417, 438-440, 451, 461.

2. *G. T. Holm*, a favourite pupil of Linnæus, who had great expectations of him. He died very young; and hitherto but little was known of his life. His letters (three) give very valuable information on the efforts made by the Danish Government in order to resuscitate the study of natural history, which had lain dormant in Denmark since the time of Bartholinus and Steno.

3. *G. C. Oeder*, the founder of the Botanical Garden at Copenhagen, and the first editor of the well-known work published by the Danish Government, the 'Flora Danica.' (Six letters.)

4. *P. Ascanius*, the First Professor of Zoology at Copenhagen. (Six letters.)

5. *C. G. Kratzenstein*, Professor of Medicine and author of the original text to the splendid work on shells by Regenfuss ('Choix de Coquillages') published at the expense of the King of Denmark. This text was withdrawn and another substituted for it, a very curious and hitherto but imperfectly understood episode in literary history\*. Also with regard to the great expedition to Arabia sent out by the Danish Government, which resulted in the well-known works of Niebuhr and Forskåhl, many new and interesting details are contained in the letters of Kratzenstein (six in number), Oeder, and Holm.

6. *C. F. Rottböll*, afterwards Professor of Botany, author of several works in that department. (Five letters.)

7. *M. Th. Brännich*, Professor of Zoology and Mineralogy at Copenhagen, author of 'Ichthyologia Massiliensis,' 'Ornithologia Borealis;' a friend of Jos. Banks, E. Tennant, Solander, &c. (Sixteen letters.)

After my return from London with the copies of these letters, I had occasion to examine the papers and manuscripts formerly belonging to Brännich, and now preserved at the University library at Copenhagen. I had the great pleasure of finding amongst them nine autograph letters from Linnæus, answers to a corresponding number of those from Brännich. They have been printed in the 'Naturhistorisk Tidsskrift,' vii. pp. 510-521. The two savants had never met; but they understood and appreciated

\* It was originally intended to publish this work by subscription; and a specimen of the circular issued by Regenfuss, probably the only one existing, is bound up with Linnæus's copy of the work in the library of the Society.

each other thoroughly; and their correspondence bears strong testimony of their mutual esteem and sympathy.

8. *Lorenz Spengler*, the widely known collector of shells, whose collection, containing a great number of types, is still preserved at Copenhagen. (Four letters.)

9 and 10. *Hans Ström* and *I. E. Gunnerus*, Bishop of Thronhjem, able and industrious observers of nature in Norway and authors of many, for their time, valuable papers. (One and five letters.)

11. *O. F. Müller*, the author of 'Zoologia Danica' and so many other distinguished works. Like Brünnich, he knew Linnæus only by correspondence; but it is noticeable that the latter never entered into so cordial relations with him as with Brünnich. (Fifteen letters.)

12. *Joh. Chr. Fabricius*, the great entomologist and the ablest of Linnæus's personal disciples. Amongst the twelve letters in this collection is also the one (without date, but from other sources known to have been written in 1766) in which he submits to Linnæus his new method of analyzing and classifying insects.

13. *Johan Zoëga*, a botanist of great ability, but who unfortunately was compelled from various circumstances to abandon natural science and enter on an administrative career. In this he distinguished himself greatly; but natural history sustained a severe loss. He studied at Upsala together with his cousin, Joh. Chr. Fabricius; and it is recorded that Linnæus once said, "When I see Fabricius with an insect, and Zoëga with a moss, I take off my hat and salute my masters." The twenty-six letters from his pen contain a great mass of valuable personal and scientific details.

14. *Martin Vahl*, the celebrated author of the 'Symbolæ Botanicae,' 'Eclogæ Americanae,' &c., himself a devoted personal disciple of Linnæus. (One letter.) Besides these, there are letters from the statesman J. H. E. Bernstorff, the historian Suhm, and other men of fame.

The correspondents of Linnæus very frequently sent him descriptions and annotations of plants and animals; and many entries and alterations in the various editions of the 'Systema

Naturæ' may doubtless be traced to this correspondence. The often voluminous descriptions, sometimes accompanied by drawings, which form enclosures or parts of the letters in question, have not been reproduced in the 'Naturhistorisk Tidsskrift,' as not having sufficient value in proportion to the space they would occupy. But as an instance of how the correspondence illustrates the systematic works of Linnæus, we may mention the following. In the second edition of 'Fauna Suecica' we find under the genus *Hydra* a species called *triticea*; but in the twelfth edition of the 'Systema Naturæ' this is omitted, and rightly so. From one of the letters of Fabricius we gather in what way Linnæus was led to correct the error; for Fabricius here communicates to him that a certain Schun (whose name is probably misspelt), minister at Bamf, had informed him that these supposed Hydras, which occur frequently on the coast, were only the ova of *Buccinum lapillus*, L. This letter is written from Edinburgh, 17 September, 1767 (Naturhistorisk Tidsskrift, vii. p. 459).

But as I have already said, it is for the appreciation of Linnæus's contemporaries and his influence on them (in short, of the Linnæan period in natural history) that this correspondence is principally valuable; and I may perhaps, in conclusion, be permitted to express a hope that some writer thoroughly qualified for the task may be found inclined to work up in an exhaustive manner the vast store of material for the history of science which I feel sure must be contained in this remarkable collection of letters.

Copenhagen, April 1874.



On the Classification of the Animal Kingdom. By T. H. HUXLEY,  
LL.D., Sec. R.S., F.L.S., &c.

[Read December 3rd, 1874.]

IN the twelfth edition of the 'Systema Naturæ' Linnæus gives the following definition of the object of classification:—

"Methodus, anima scientiæ, indigitat primo intuitu, quodcunque corpus naturale, ut hoc corpus dicat proprium suum nomen, et hoc nomen quæcumque de nominato corpore beneficio seculi innotuere, ut sic in summa confusione rerum apparenti, summus conspiciatur Naturæ ordo" (*l. c.* p. 13).